

### **Amendments to the Claims**

Claim 1 (**Currently Amended**) A method for collapsing microbubbles, the microbubbles having a diameter of 50  $\mu\text{m}$  or less and floating in a solution and decreasing gradually in size by natural dissolution of ~~the~~ a gas contained in the microbubbles, the method comprising accelerating a speed of microbubble size decrease and disappearance by applying a stimulation to the microbubbles, wherein a great amount of free radical species are released from a gas-liquid interface by increasing a charge density at the gas-liquid interface of the microbubbles.

Claims 2 and 3 (**Cancelled**)

Claim 4 (**Currently Amended**) The method according to Claim 1, wherein free radical species comprising active oxygen species for decomposition of substances present inside the microbubbles or in an area surrounding the ~~micro-bubbles~~ microbubbles are generated by collapsing the microbubbles by the stimulation.

Claim 5 (**Previously Presented**) The method according to Claim 1, wherein the method gives rise to a compositional change of chemical substances dissolved or floated in the solution.

Claim 6 (**Previously Presented**) The method according to Claim 1, wherein the method sterilizes microbes, viruses, and other microorganisms present in the solution.

Claims 7-9 (**Cancelled**)

Claim 10 (**Currently Amended**) The method according to Claim 1, wherein the stimulation is compression, expansion and swirling current generated by circulating part of a microbubble-containing solution in a container connected by a circulation pipe to a circulation pump and making the solution ~~path~~ pass through an orifice plate or porous plate having a single hole or multiple holes, wherein the orifice plate or porous plate is installed in the circulation pipe.

Claim 11 (**Previously Presented**) The method according to Claim 10, wherein the circulation pump gives a positive pressure of 0.1 MPa or more to a discharge side.

Claim 12 (**Previously Presented**) The method according to Claim 10, wherein the circulation pump give a negative pressure lower than an environmental pressure to an intake side.

Claim 13 (**Currently Amended**) The method according to Claim 1, wherein the stimulation is compression, expansion and swirling current generated by feeding a microbubble-containing solution in a container connected to a circulation pump by a circulation pipe and making the solution ~~path~~ pass through an orifice plate or porous plate having a single hole or multiple holes, wherein the orifice plate or porous plate is installed in the circulation pipe.

Claims 14-18 (**Cancelled**)

Claim 19 (**New**) The method according to Claim 1, wherein the gas is ozone.